

Operating Instructions **EIB Alarm Central Unit**

Best. Nr.: 7573 00 10





## Warning

**Caution: Opening the enclosure of your EIB alarm central unit as well as maintenance and installation of the same may only be performed by a qualified electrician.**

**This device contains dangerous voltages which can cause electric shock, physical shock and other injuries.**

**The following documents belong to the documentation of the EIB alarm central unit:**

- Operating Instructions (this document);
- Installation Instructions (containing instructions and notes related to service and warranty);
- a list of the detectors, auxiliary arming device and alarm indicators installed (e. g. ETS2 printout) as well as related instructions (available from your licensed electrician).

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## Introduction

The EIB alarm central unit is a modern intruder alarm system using the European Installation Bus (EIB) for the transmission of information. It keeps an object under surveillance and detects and signals intrusion attempts. The system is no substitute for any mechanical safeguarding devices which prevent intrusion into your property.

You can use the EIB alarm central unit as a comfortable extension for any existing EIB installations.

The alarm central unit has been designed in compliance with VdS (German Association of the Damage/Loss Insurers) guidelines.

The present operating instructions describe the concept and operation of your EIB alarm central unit. Please read them thoroughly and keep them ready to hand. It will provide all the information needed to ensure perfect operation.

## 1. General Remarks and Definition of Terms

In this section, we shall explain to you the most important safety engineering terms that you will need to understand your alarm system.

### Safeguarding area

A safeguarding area ("SA") is a part of a building kept under surveillance by a group of detectors.

### Detector

A device keeping under surveillance a part of an object and signalling to the central unit an intrusion or any attempt of intrusion. Frequently used detectors include magnetic contacts, glass breakage sensors and alarm-type motion detectors.

### Fire detector

Whereas "normal" detectors, which are supposed to signal intrusion, must be expressly activated to do so ("armed"), those in the "fire detector" safeguarding area will always be ready for service and will set off an alarm in the event of fire. Usually, smoke detectors are used for this purpose.

### Attack detectors

From the technical point of view, attack detectors are simple push-buttons which can be actuated by the user in an emergency. They are available in various designs: as normal EIB sensor push-buttons or installation pushbuttons, or as grip or step rails.

When being actuated, attack detectors will always raise alarm, regardless of the state of the system.

To protect the person present, such alarm can be raised in "silent" form and, for example, be transferred to a property security company through an alarm transmission device.

### Arming area

An arming area ("AA") covers one or several safeguarding areas.

### Arming device

It serves to arm or disarm an arming area, e. g. with the aid of a key-operated switch. Even simple installation pushbuttons or EIB sensor push-buttons are, in principle, suitable; however, they will not offer any protection against unauthorized access.

### Display

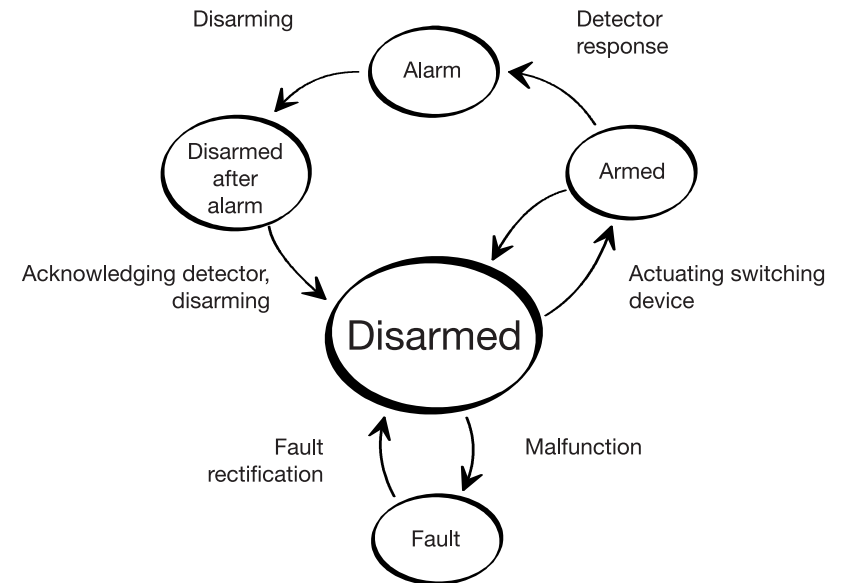
The display informs about the states of the system and of the detectors, e. g. info display: "Workshop - left window - open".

### Armed/disarmed state acknowledgement

Upon arming and disarming, the alarm system will confirm ("acknowledge") the change of state, for example, by a flashlight. Thus you can recognize without any doubt whether the system responds as desired or not, especially when operating the system from outside without seeing the display unit.

### System states

Depending on the state an alarm system has taken, the latter will respond to incoming signals in different ways. This EIB alarm central unit distinguishes among the states shown in the illustration below:



#### "Disarmed"

No safeguarding of the building is required; intruder and sabotage signals (e. g. opening of a window) will not raise alarm.

#### "Armed"

The EIB alarm central unit is activated; intruder or sabotage signals within an arming area will set off the alarm. Depending on actual use and distribution of the safeguarding areas, one can distinguish between

- **internally armed** (persons are present): Only the outer shell of the object will be safeguarded (windows and doors). Persons inside will not set off an alarm unless they interfere with the outer shell. Although motion detectors installed inside detect movements, no alarm will be set off.

and

- **externally armed** (no persons present): All internal and external areas will be safeguarded. If any of the detectors responds, an alarm will be set off.

**"Alarm"**

If a detector responds within an armed safeguarding area, the alarm system will change to the "alarm" state. The alarm indicators- siren, flashlight, etc. - will be activated (depending on how they have been programmed).

If detectors have been programmed as "delayed", some "pre-alarm" (indicated visually or audibly) can be set off first, with the change to the "alarm" state taking place only after the corresponding alarm delay time has elapsed.

**"Disarmed after alarm"**

After an alarm, you must always locate and eliminate its cause. This is why the system will be set to the "disarmed after alarm" state (the flashlight is normally still active, and "alarm" being indicated). The detectors which have triggered the alarm will be shown in the display unit. To return to the "disarmed" state you must first acknowledge the indicated detectors one by one before you can change to the "disarmed" state by disarming once again.

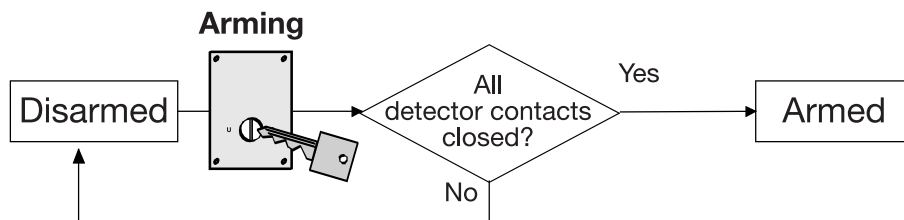
**"Fault"**

The system will change to the "fault" state if the functioning of individual components is adversely affected to such an extent that proper operation is no longer guaranteed. The system cannot be armed out of the "fault" state; the fault must first be eliminated (exception: fault in the "fire" safeguarding area).

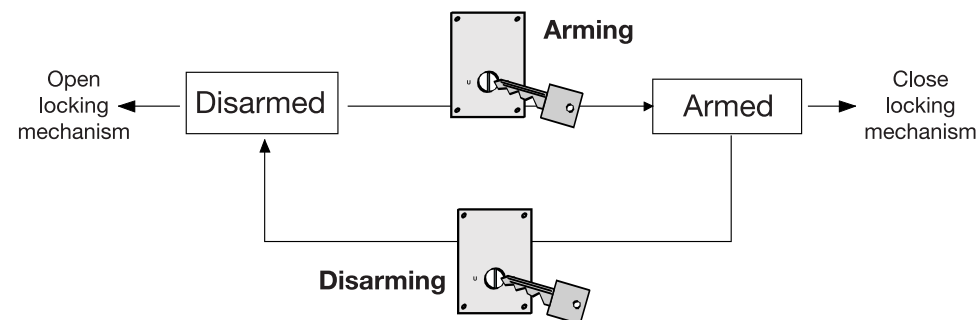
**Ready for arming**

A system can only be armed, if all detector contacts are closed and no fault prevails. Not only the alarm indicators should be considered as detector contacts but also the lock monitoring devices which will recognize whether a door is locked, e. g. by a striking plate contact.

The display will indicate this with the "Ready for arming" message.

**Motor-driven locking element and pulse door opener**

Entering a safeguarded object should only be possible when the alarm system has been disarmed. For this purpose, additional door locking mechanisms should be installed which will only permit opening when the system has been disarmed.



**Important:** Such additional door locking mechanisms will prevent inadvertent ingress into an armed area.

They are not comparable to mechanical locks, and do not necessarily have the same mechanical resistance.

**Alarming**

In the event of an alarm, alarming (for delayed detectors, after the delay time has elapsed) is effected by so-called "alarm indicators". The following types of alarming are possible:

- Local alarm: The "local" alarm indicators such as indoor sirens or an outdoor siren with a flashlight will be actuated.
- Remote alarm: The alarm will be transmitted to a remote place such as a private person or a property security company by means of an alarm transmission device (ÜG).

**Sabotage**

designates any unauthorized attempt to put out of action, damage or remove the alarm system or parts thereof. Response to sabotage depends on the state of the system:

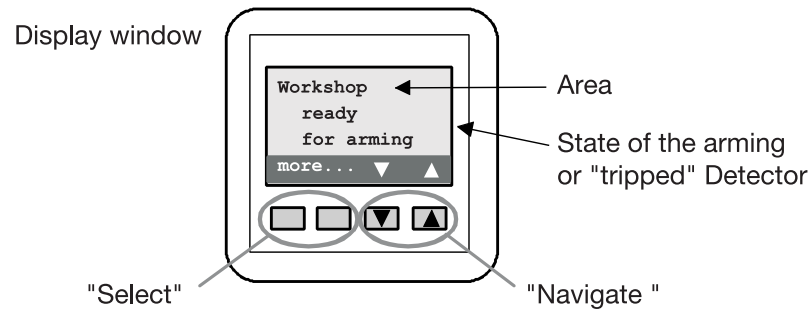
- In the "disarmed" state, sabotage will cause a fault.
- In the "armed" state, sabotage will set off an alarm.
- Sabotage with an attack detector always leads to an alarm.

## 2. Operation

In this passage, we will explain how to operate the alarm central unit. Depending on the configuration of your system - for example, regarding the number of safeguarding areas, whether cascaded or nested, or a different display unit – there may be differences. In the examples shown here, we use a key-operated switch as arming device and an EIB info display unit for indication.

### Display

The info display unit can be used for various display functions in the interior installation. For this purpose, various "pages" must be allocated in the info display unit. One page of the info display unit must be defined as "alarm central unit display". This alarm central unit page will provide information on the state of the arming areas and the "tripped" detectors of the building.



### Navigate

Use the ▲ and ▼ keys to change between the individual "pages" of the info display unit. Press one of these keys as many times as necessary to get to the "alarm central unit page".

### Select

The alarm central unit page lists all existing messages one by one. Press one of the left "more..." keys to select the next message.

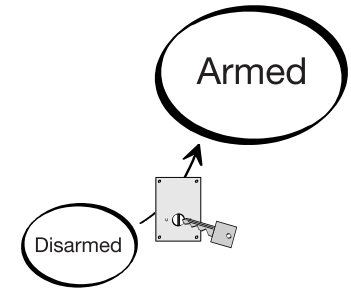
After all messages of an arming area have been displayed, they will either be read again, or the messages of the next arming area will be read (depending on the corresponding parameterisation).

## Arming/disarming

### You want to arm

All detectors must be in the ready-to-arm state. Close all safeguarded doors and windows; motion detectors must not detect any movements. The display unit will confirm this for each arming area by the message:

"Ready for arming".

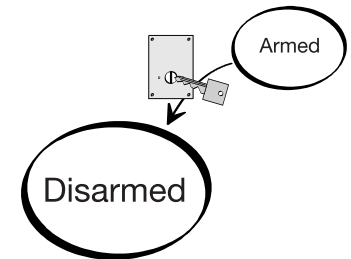


Actuate the arming device (e. g. key-operated switch) and arm the arming area. Depending on the respective configuration, the change of state ("armed/disarmed confirmation") will be acknowledged, for example, by the info display unit or by the flashlight.

### You want to disarm

Actuate the arming device and disarm the arming area.

Depending on the respective configuration, the change of state will be acknowledged.



## Alarming

An alarm will be set off if

- detector within a armed area responds;
- sabotage signal arrives while an area is in the armed state;
- detector in the "fire" safeguarding area responds;
- attack detector is actuated or tampered with;
- an attempt is made to re-program the central unit while an area is in the armed state.

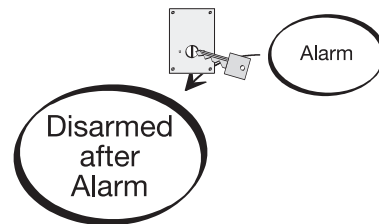
In the event of an alarm, one or several (depending on the configuration of the system) of the following alarm indicators will be actuated:

- indoor siren (recommended time 180 sec. max.),
- outdoor siren (recommended time 180 sec. max.),
- flashlight,
- additional alarm (relay in the EIB alarm central unit),
- remote alarm (alarm transmission device).

For more details, please refer to the system documentation handed over to you by your electrician.

### You want to reset the alarm

Actuate the arming device (to disarm the system) until the acoustic warning devices - if still active - switch off. The system will change to the "disarmed after alarm" state.



### Important

If the arming device is damaged or has been tampered with, you can no longer use it to disarm the system. If installed, you can use an alarm reset switch or, if necessary, a second arming device to turn off the alarm. Have your alarm system repaired. The flashlight and the alarm transmission device (remote alarm) will continue to be active.

## Viewing the event log

In the "disarmed after alarm" state, the info display unit will read "Alarm". Pressing the keys on the left displays the following items one by one:

- 1.the detector which has set off the alarm;
- 2.the time and date when the alarm was set off;
- 3.further detectors which might have been triggered;
- 4.a disarming request.

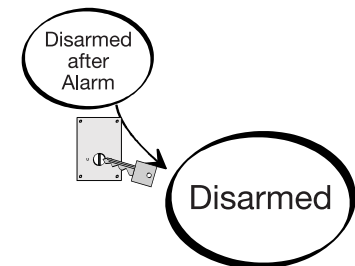
Pressing the key once more displays the messages once again, or displays messages from other areas.



**Note:** The event log will be displayed in the "disarmed after alarm" state. Reading out the data in the "disarmed" state with the aid of a PC and the ETS2 program package is possible from version 1.2a onwards. Contact your electrician in this respect.

### Changing from the "disarmed after alarm" to the "disarmed" state

It is only after viewing the triggered detector on the display unit before that the arming device can be actuated for setting the system back to the disarmed state. This will switch off the visual warning devices; the alarm transmission device will transmit the "clear signal" to the property security company (if such option has been installed).



After this, the alarm system will change to the "fault" state, if necessary.

## Fault

As long as the EIB alarm central unit is in the "fault" state, arming of the system is not possible. The fault must first be acknowledged, eliminated and reset.

### Acknowledging a fault

The display unit indicates the cause of the fault. Press one of the two left keys of the info display unit to acknowledge the fault message(s).

The following fault messages may be displayed:

- "Detector missing" – an alarm detector has been removed or is defective;
- "Sabotage" – a sabotage detector has tripped;
- "Alarm central unit sabotage line " – the sabotage line of the alarm central unit has been interrupted (or short-circuited);
- "Alarm central unit enclosure sabotage" – the alarm central unit has been opened (sabotage contact);
- "Battery fault" \*) – have the storage battery and fuse F5 checked and replace either of them or both, if necessary;
- "Alarm device overcurrent" – alarm device overloaded or defective;
- "Mains failure < 60 minutes" \*);
- "Mains failure > 60 minutes";
- "Subordinate EIB alarm central unit missing" – missing status message from a different central unit;
- "Transm. dev. failed" \*) – fault in alarm transmission device.

**Note:** Any fault marked \*) need not be eliminated immediately; it is sufficient to acknowledge and reset such fault.

**Eliminating a fault**

To repair serious problems such as defective detectors or damage as a result of sabotage you should contact your electrician.



**Warning**

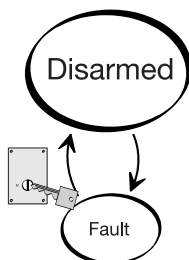
**Caution: Any kind of fault requiring the EIB alarm central unit or other components connected to be opened may only be repaired by a qualified electrician.**

**This device contains dangerous voltages which can cause electric shock, physical shock and other injuries.**

**You want to reset the fault – from the "fault" to the "disarmed" state**

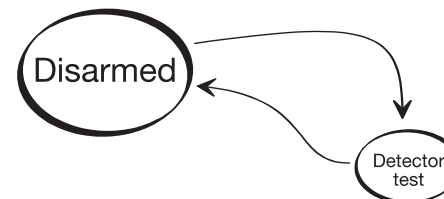
A fault signal can only be reset after the fault has been eliminated (for exceptions, see above).

Use the arming device for resetting. The system will change to the "disarmed" state.



**Detector test mode**

If your alarm system includes a corresponding switching option (e. g. a "detector test" EIB sensor pushbutton) you can set the system to the "detector test" mode. This assumes all areas to be disarmed, i. e. there must be no fault or alarm signals. In this mode, all detectors – even fire and attack detectors – can be checked for proper functioning without setting off an alarm.



**During renovation ...**

During maintenance or renovation work in the house, it may become necessary to detach individual detectors. To prevent triggering an alarm, the system should be set to the "detector test" mode.

**3. What to do if ...**

**... you cannot arm the system?**

Check whether the system is in the "fault", "disarmed after alarm" or "detector test" state. Change over to the "disarmed" state and make sure the system is ready for arming.

**... the system gives no "ready for arming" signal?**

If necessary, close safeguarded doors and windows and lock them. Make sure that no (thermal) movements occur in the detection range of motion detectors.

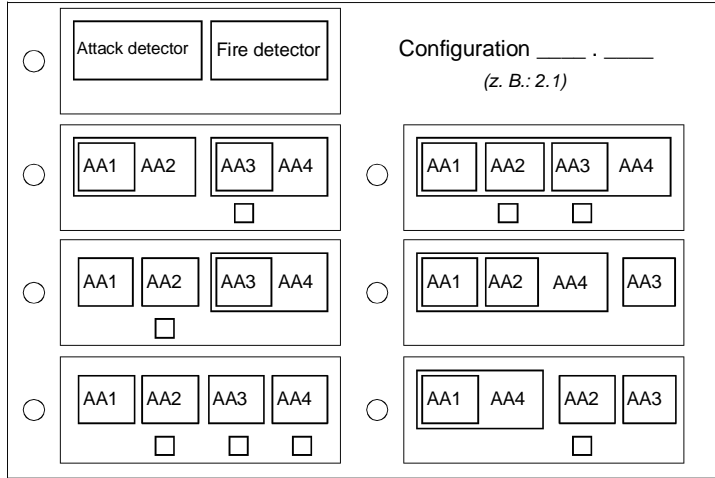
**... you cannot disarm the system?**

Check whether any fault messages have appeared in the display and acknowledge them. Check the arming device for damage. Eliminate existing faults. Contact your electrician, if necessary.

**4. Your EIB alarm central unit - Configuration**

The following brief overview of the essential data of your alarm system (number and, if necessary, safeguarding areas of the devices) has been composed by your electrician.

**Configuration**



Arming area:  
\_\_\_\_ / \_\_\_\_

**Arming device**

\_\_\_\_ Key-operated switch    \_\_\_\_ Blocking element    \_\_\_\_ Switch/pushbutton

Other \_\_\_\_\_

**Display unit**

\_\_\_\_ EIB info display unit    \_\_\_\_ PC    \_\_\_\_ Control panel

\_\_\_\_ Mini-Tableau    Other \_\_\_\_\_

**Detector**

\_\_\_\_ Fire    \_\_\_\_ Wired detector  
\_\_\_\_ Attack    for arming area \_\_\_\_

Delayed detectors: yes  / no

**Locking mechanisms**

\_\_\_\_ Blocking element    \_\_\_\_ Pulse door opener    Other \_\_\_\_\_

**Warning devices**    Outdoor siren    \_\_\_\_ wired    \_\_\_\_ EIB

Indoor siren    \_\_\_\_ wired    \_\_\_\_ EIB

Flashlight    \_\_\_\_ wired    \_\_\_\_ EIB

Relay    \_\_\_\_ wired

Pre-alarm    AA \_\_\_\_    Period \_\_\_\_ s

**Alarm transmission device** \_\_\_\_\_ wired  / EIB

Intrision     Fire     Attack     Fault     Armed/disarmed\_\_

Property security company    Telephone number: \_\_\_\_\_

**Other**

\_\_\_\_ Alarm reset switch    \_\_\_\_ Detector test switch

Armed state acknowledgment: \_\_\_\_\_

Disarmed state acknowledgment: \_\_\_\_\_

**Installed by:**

**Maintenance by:**

**Date:** \_\_\_\_\_

**Maintenance contract: yes  / no**



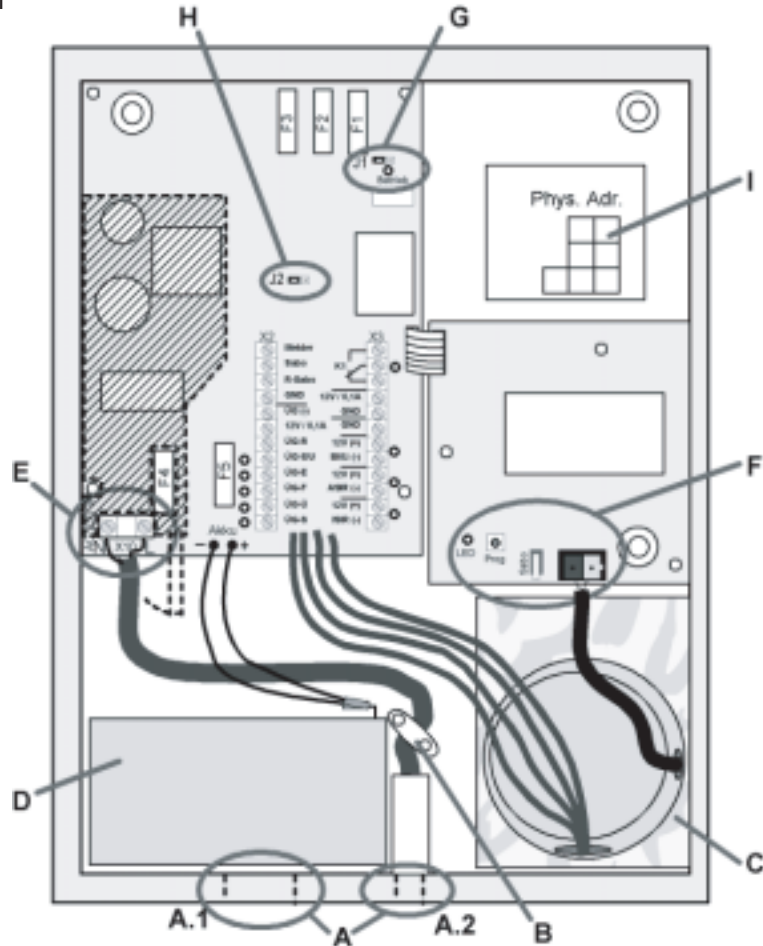
Installation Instructions

## EIB Alarm Central Unit

Best. Nr.: 7573 00 10



Fig. 1



- A. Entrance for surface-mounted wiring  
A.1 – actuators    A.2 – 230 V mains supply
- B. Strain relief clamp
- C. Entrance for flush-mounted
- D. Emergency battery
- E. 230 VAC mains supply
- F. EIB connection, programming key and programming LED, sabotage contact
- G. Jumper J1, "bus voltage failure in the armed state", "Betrieb" (device ON) LED
- H. Jumper J2, "battery monitoring", must always be inserted.
- I. "Physical address" field

Dear Electrician and Installer,

These Installation Instructions and the Operating Instructions are parts of the EIB alarm central unit and must be handed over to your customer after system start-up.

Thank you.



**Warning**

**Caution:** The installation and assembly of electrical equipment may only be performed by a qualified electrician.

**Caution:** Disconnect the EIB alarm central unit from the mains voltage (230 VAC) before opening the enclosure.

**Caution:** Risk of explosion if the storage battery is replaced improperly. Do not short-circuit the battery poles: risk of fire.

The battery does not belong in the hands of children. Remove the exhausted battery immediately and discard without polluting the environment.

Replace the battery only by the same type.

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## 1. System information

This device is a product of the *instabus* EIB System and complies with EIBA directives. Detailed special knowledge obtained in *instabus* training courses is a prerequisite to proper understanding.

The function of the device depends on the software used. Detailed information on loadable software and attainable functions as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the device is done by means of the ETS2 software from version 1.2a onwards.

Know-how in planning, commissioning and use of alarm systems is required.

## 2. Function

This EIB alarm central unit is the "intelligence" of an efficient alarm system. Owing to the utilization of the *instabus* EIB installation bus, expensive additional cabling work can be reduced to a minimum. Both the EIB system and individual detectors installed can, for example, also be used by other trades.

The EIB alarm central unit is characterised by the following performance features:

- Up to 160 detectors can be managed and integrated in up to four separate safeguarding areas.
- All sensors (detectors) are connected with the EIB alarm central unit via the EIB. This facilitates individual identification and monitoring of all detectors.
- All events (arming, alarm, fault) will be recorded together with the associated date and time.
- The alarm indicators (siren, flashlight, alarm transmission device) can be directly connected to the alarm central unit or triggered via the EIB.
- An emergency battery will guarantee uninterrupted operation of the EIB alarm central unit for at least 12 hours, even in the event of power failures.
- Display and operation are decentralised and can be handled via external EIB devices (info display unit, sensor pushbuttons, etc.). Within an arming area, several pieces of arming devices can, for example, be used.
- A local detector input can be used to make the alarm central unit monitor the place of installation such as the distribution cabinet, thus "safeguarding itself".
- An additional relay contact can, for example, be used for additional alarm indicators.

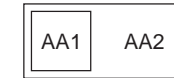
## Configuration

Due to many different parameterisation options, the EIB alarm central unit can be used in various objects – from the detached family house with outer shell and inner room safeguarding up to the office building where up to four arming areas (AA) can be safeguarded individually or in groups linked up with one another. The following list shows the basic configurations which may also be combined with one another.

### 1x inner room, 1x outer shell (nested)\*:

Detached family house, flat.

(AA1 = outer shell, AA2 = inner room; AA1 can be armed individually or together with AA2.)



### 2x [1x inner room, 1x outer shell (nested)\*]:

Two-family house, house with granny flat,  
2 separate safeguarding areas (workshop with flat).



### Up to 4 separate areas:

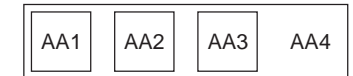
Shopping arcade, holiday houses, hotel/pension,  
trade fair/exhibition halls.



### Up to 4 separate areas (cascaded)\*\*:

Office/industrial building, sports hall.

(AA4 only to be armed if AA1 to AA3 have already been armed.)

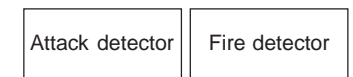


\* nested: The subordinate area is armed together with the higher-order area.

\*\* cascaded: The higher-order area can only be armed if the subordinate areas have already been armed.

## Fire and attack detectors

Regardless of the configuration of the system, the fire and attack areas are always active. If a fire or attack detector is activated the system will immediately set off an alarm, regardless of what its state is.



As a special variant, the alarm central unit can also be solely used for "attack" and "fire".

### 3. Installation



#### Warning

**Caution: Disconnect the alarm central unit from the mains voltage (230 VAC) before opening the enclosure.**

**Risk of electric shock.**

**For fixed installations (wall installation) only.**

#### Alarm central unit place of installation

Install the EIB alarm central unit in a protected place located within an area safeguarded by a detector (e. g. loft, basement, lumber room, distribution cabinet).

Maximum security against sabotage is obtained if all wiring to the alarm central unit is installed under plaster. Through the installation opening at the rear side of the enclosure, the wiring can be led into the alarm central unit. Refer to Fig. 1 (C).

If wiring to the EIB alarm central unit has to be laid on the surface, it can be led in through the bottom of the device. Refer to Fig. 1 (A.1). To connect the mains supply, use the entrance and the strain relief clamp provided for this purpose. Refer to Fig. 1 (A.2) and (B).

#### Procedure

1. Loosen the two screws ① (bottom side) and open the enclosure.
2. Take out the storage battery after removing the cable tie (shipping brace).
3. Use four screws to mount the enclosure bottom part to the wall (use the attached drilling template).
4. Lead the wiring (power supply, EIB connection, alarm indicators, etc.) through the installation opening into the alarm central unit.
5. Connect the wiring and the battery to the alarm central unit (refer to the "Connecting" chapter).
6. Close the enclosure and tighten screws ①.

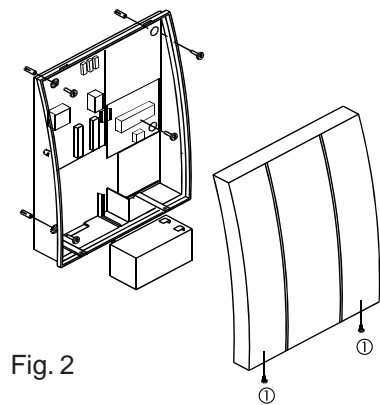


Fig. 2

### 4. Connection

#### 4.1 Connection to the 230 VAC mains voltage

The EIB alarm central unit needs 230 VAC mains voltage for operation. Fuse protection of the EIB alarm central unit should be implemented by a safety cut-out which is not part of the residual-current protection circuit of your general interior wiring.

Connect the mains wiring to terminal strip X10 (refer to Fig. 1 E). For safety reasons, the mains cable must not be stripped for more than a maximum length of 2 cm. The wires of the 230 V cable must not be stripped for more than a maximum length of 6 mm.

#### 4.2 Connection to the EIB



#### Warning

**Caution: Disconnect the EIB alarm central unit from the 230V mains, even when programming the physical address!**

**Risk of electric shock!**

Use the bus connecting terminal above the installation opening to connect the bus. The programming key and the programming LED are located left to the bus connecting terminal. Refer to Fig. 1 (F).

#### 4.3 Emergency battery



#### Warnings and disposal instructions:

**Caution: Risk of explosion if the storage battery is replaced improperly. Do not short-circuit the battery poles: risk of fire!**

**Do not place the battery in the vicinity of fire or do not dispose of it in fire!**

**The battery does not belong in the hands of children. Remove the exhausted battery immediately and discard without polluting the environment.**

**Replace the battery one by the same type.**



**The old battery must not be disposed of with household waste and should be returned to marked collecting points or to the manufacturer.**

The emergency battery facilitates uninterrupted operation of the alarm central unit for about 12 hours in the event of mains failure, i. e. within this period, any alarm can be safely triggered.

The battery life is approx. 5 years at an ambient temperature of 20 °C. Exposing the battery to higher temperatures or completely discharging it several times will shorten its lifetime.

It is recommended to replace the emergency battery in intervals of about 4 years.

#### Battery type:

Lead-acid storage battery: 12 V, 1.2 Ah (VdS-approved; VdS = German Association of Damage/Loss Insurers).

#### Connection:

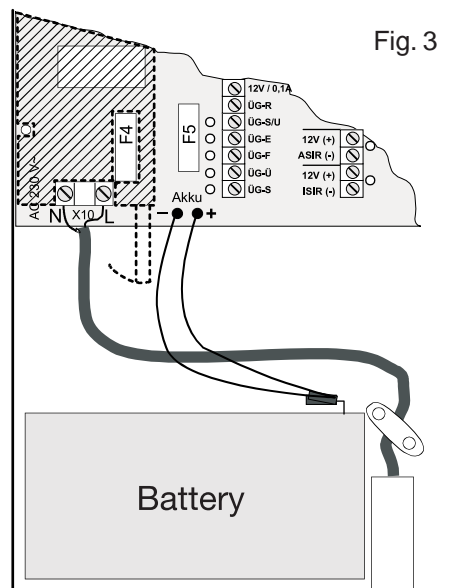
Red wire = +, black wire = -.

An intelligent electronic charging system monitors the battery for reliable operation and signals a fault if signs of ageing or defects occur. In such case, the battery must be replaced as follows:

1. All arming areas must be in the "disarmed" state.
2. Disconnect the alarm central unit from the mains.
3. Open the cover of the alarm central unit, remove the old battery and connect the new one with the correct polarity. (Reverse polarity will blow fuse F5.)
4. Close the cover of the alarm central unit. Re-connect the mains supply.
5. Disarm all arming areas to acknowledge the sabotage signal triggered by opening of the alarm central unit.
6. The battery fault will no longer be displayed.

#### Important

- The bus voltage and all detectors connected to the EIB will not be supplied by the emergency battery. Use an EIB standby power supply system for this purpose.
- Supplying external alarm components (e. g. motion detectors or alarm transmission device) from the alarm central unit will shorten the emergency power supply period.
- **Batteries are consumables and are not under warranty.**

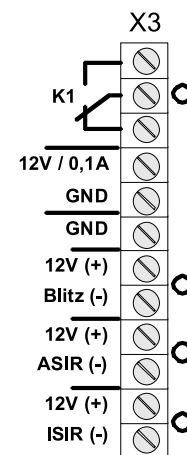


#### 4.4 Connecting the alarm indicators

Alarm indicators can be connected directly to the EIB alarm central unit, terminal strip X3. In addition, alarm indicators can be connected to the EIB via suitable actuators and triggered by telegrams.

Integrate the sabotage contacts of the alarm indicators into the sabotage line (refer to chapter 4.7, "Security against sabotage").

The LEDs assigned to the terminals will indicate when an output is being triggered. (Output triggered = LED is lit up.)



Terminal	Function
Relais K1	Potential change-over contact facilitating the switching of a load. Max. contact rating 12 V, 5 A AC/DC (SELV), min. current 30 mA.
12V / 0,1A / GND	12-V connection for the supply of external alarm components, can also be switched from K1. Max. load 100 mA (fuse F2)
12V (+) / Blitz (-)	For connection of a flashlight. Can be activated in the event of alarm without any time limit until disarming takes place.
12V (+) / ASIR (-)	For connection of an outdoor siren. Set it to a maximum of 180 s for alarm (parameter setting).
12V (+) / ISIR (-)	For connection of an outdoor siren. Set it to a maximum of 180 s for alarm (parameter setting).

#### Important

- For the alarm indicators (flashlight, outdoor siren, indoor siren), a total current of 1.6 A is available. The distribution of the current over the alarm indicators is irrelevant. An electronic overload detection circuit will disconnect the alarm indicators in case of overload and then reconnect them one by one (flashlight - outdoor siren - indoor siren). If, in this connection, an individual transmitter connection turns out to be overloaded (short-circuit) it will be switched off permanently.
- The wiring to the alarm indicators (flashlight, outdoor siren, indoor siren) must not be longer than 100 m for a wire diameter of 0.8 mm.
- If alarm indicators are to be triggered through the EIB, the free wires of the EIB cable (yellow and white) can be used for power supply purposes. In this case, connect the free wires to the 12 V (+) and GND terminals of terminal strip X3. This pair of wires must then no longer be used for any other application.
- Observe the SELV installation regulations as per VDE 0100-410 when installing the wiring.



### 4.5 Wired detectors

A wired detector (also several normally closed contacts in series) can be connected directly to the alarm central unit, terminals "Melder" (detector) and "GND" of terminal strip X2 (closed circuit protection).

Such detector can, for example, be used for safeguarding the area in which the alarm central unit is located.

Use the ETS2 to assign this wired detector to one of the safeguarding areas.

The line to the wired detector must not be longer than 200 m for a wire diameter of 0.8 mm. The line resistance must be below 1kΩ.

### 4.6 Connecting the alarm transmission device (ÜG)

At terminal strip X2, a device for the transmission of signals to a property security company or to a private person can be connected. In this connection, the individual terminals will be triggered separately, with the associated LED being lit up.

The wiring to the alarm transmission device must not be longer than 200 m for a wire diameter of 0.6 mm.

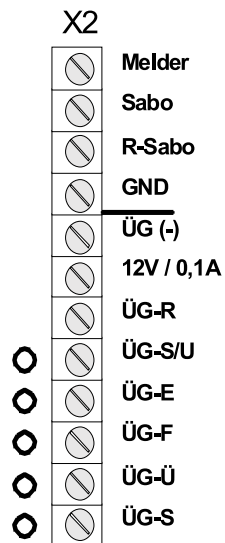


Fig. 5

Terminal	Function
ÜG (-) 12V/0,1A	Supply voltage (for alarm transmission devices without their own power supply). Maximum load 100 mA (fuse F3).
ÜG-R	Checkback contact from the alarm transmission device (in case of a fault in the alarm transmission device).
ÜG-S/U	Arming/disarming, signalling to the alarm transmission device.
ÜG-E	Intruder signal to the alarm transmission device (a detector of an armed area has been tripped).
ÜG-F	Fire signal to the alarm transmission device (a smoke detector has been tripped).
ÜG-Ü	Attack signal to the alarm transmission device (a smoke detector has been tripped).
ÜG-S	Fault signal to the alarm transmission device (e. g. battery fault).

The "ÜG-R" terminal will be triggered by the alarm transmission device if there is a fault in the telephone network (no exchange connection), or if a call cannot be transmitted. In the event of a "silent" attack alarm (alarming only through the alarm transmission device) a (parameterizable) local alarm (siren and flashlight) can be triggered after an unsuccessful alarm signal.

### 4.7 Security against sabotage

The alarm central unit offers the option of a wired sabotage line into which the sabotage contacts of the wired alarm indicators (siren and flashlight) as well as arming devices can be integrated.

Connect the sabotage line to the "Sab0" (sabotage) and "GND" terminals of terminal strip X2. For this purpose, remove the wire jumper between these two terminals.

A terminating resistor can be inserted into the sabotage line. This offers the advantage that not only an interruption but also a short-circuit in the sabotage line can be detected. The ETS2 offers a selection choose of the following resistance values: 0 Ω, 12 kΩ, 47 kΩ. If a resistance is needed which cannot be configured, the "R-Sabo" terminal can be used for adaptation.

**Example:** An alarm siren has a firmly integrated resistor of 10 kΩ at the sabotage terminal. Configure the resistance of 12 kΩ from the ETS2. Connect a 2 kΩ compensating resistor to obtain a sabotage line total resistance of 12 kΩ. Refer to Fig. 7.

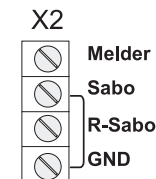


Fig. 6

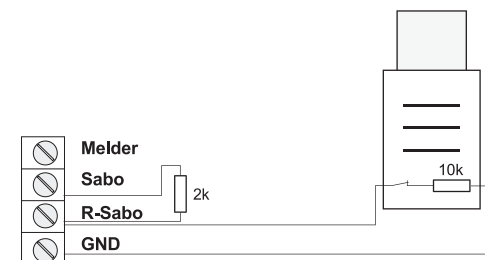


Fig. 7

The sabotage line should not be longer than 600 m for a wire diameter of 0.8 mm.

The enclosure of the alarm central unit is protected against opening by a microswitch (sabotage contact) (refer to Fig. 1 F). Opening the enclosure in the disarmed state will cause a fault signal. If an area has been armed, a sabotage alarm will be triggered.

### Sabotage security for external devices

The sabotage contacts of the devices in the safeguarded inner area and of the external arming devices should be integrated into the system through the EIB as sabotage detectors. This facilitates the immediate identification of the tripped detector contact when a sabotage alarm is released.

## 5. Response to bus failure



### Warning

**Disconnect the alarm central unit from the 230 V mains before installing jumper J1!  
Risk of electric shock!**

Use jumper J1 to set the response to bus failure when the alarm system is in the armed state. Refer to Fig. 1 (G).



Position 1	In the event of a bus failure, the flashlight and outdoor siren outputs as well as the fault signal and intruder signal outputs to the alarm transmission device will be triggered.
Position 2	In the event of a bus failure only the fault signal output to the alarm transmission device will be triggered.

All other settings must be made with the ETS configuring software.

During normal operation, the green "Betrieb" (device ON) LED, Fig. 1 (G) is permanently lit up. It will flash if the bus has failed, or if the alarm central unit is not yet programmed.

## 6. Arming devices

All arming devices are connected with the alarm central unit via the EIB.

### Alarm reset switch

If external arming devices sets off a sabotage alarm, it can no longer be used for disarming. To switch off the alarm, either a second arming device must be available or an alarm reset switch be installed (recommended: key-operated switch) within the safeguarded area.

When actuated, the alarm reset switch will disarm all arming areas.

## 7. Display unit

The alarm central unit has no display unit of its own. For this reason, one or several display units should be integrated (e. g. info display unit) via the *instabus* EIB into the entire system. Up to four independent display units can be triggered. The display permits checking of the states of the individual arming areas, polling of open detectors and the indication of the causes after an alarm / a fault.

### Event log

In the event log, all events (arming, tripping of a detector, etc.) are saved. The complete event log can only be viewed, saved as a text file or printed out via the ETS2. The size of the event log depends on the number of arming areas and covers at least the last 80 events per arming area. For each of the fire and attack areas, the number of events logged is 40.

## 8. Detector test

The detector test mode can be used to check all detectors in the alarm system without setting off an alarm. During such test, tripped detectors (movement, fire, attack, etc.) will be indicated by the display unit until the detector test mode is deactivated.

The detector test mode can be activated by an EIB telegram, e. g. from a sensor push-button installed in a hidden place within the object. Do not switch the alarm system into the detector test mode unless all areas are disarmed and if no fault or alarm signal exist. The firm installation of such a detector test push-button is useful in order to enable the user of the system to perform such function test at regular intervals.

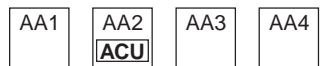
The detector test mode differs from normal operation as follows:

- All display units will read "Detector test".
- Tripped detectors will be indicated by the display unit in the sequence of the arming areas.
- Events will not be written into the event log.
- The outputs will not be triggered.
- Fire or attack signals will set off an alarm.
- The system cannot be armed.
- There will be no response to fault signals.
- The alarm central unit cannot be programmed.

## 9. Multi-area configuration instructions

If a configuration where several arming areas (AA) exist side by side is chosen, the following rules must be observed.

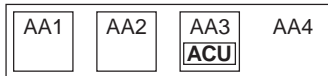
- The alarm central unit must be managed by a user who is authorized to arm and disarm all areas for servicing and in the event of alarm.
- Once an area has been armed, the alarm central unit must also be located within a safeguarded area. If necessary, this can be implemented with the aid of detectors from other areas.
- To avoid erroneous alarms, it is necessary to take the corresponding precautions for the place where the alarm central unit is located (e. g. in the switch cabinet). Ensure that:
  - the alarm system can only be armed after the cabinet door has been locked (e. g. by a striking plate contact).
  - the switch cabinet door cannot be opened as long as an area is armed (e. g. by a motor-driven blocking element).



ACU = alarm central unit

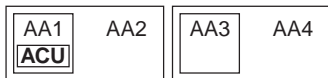
### Examples

1. Separate areas: In principle, the alarm central unit cannot be assumed to be within a safeguarded area. In the opposite illustration, this will only be the case if AA2 is armed.



2. Cascaded: As long as AA3 or all areas from AA1 to AA4 are not armed the alarm central unit will not be safeguarded.

**Remedy:** Integrate detectors into the sabotage line of the alarm central unit ("Sabo" terminal) which will safeguard the latter. If an area is armed, these detectors will be active and trigger an alarm when they are opened.



3. Nested: The alarm central unit will only be safeguarded if AA1 or AA2 are armed.

**Remedy:** Have the alarm central unit monitored by a wired detector assigned to arming area AA3 ("Melder" (detector) terminal) from the ETS2. If AA3 is armed the wired detector will be active and set off an alarm when opened.

## 10. Parallel operation of several alarm central units

Particularly large objects (shopping arcades, extensive factory units) can possibly not be monitored by one alarm central unit alone but require several alarm central units, each of them monitoring partial complexes.

Such alarm central units can monitor one another by sending and receiving telegrams for mutual monitoring. After three missing telegrams, a sabotage signal will be released (armed: alarm, disarmed: fault).

## 11. System documentation

The documentation of the entire system is an essential part of any EIB alarm central unit installed. This documentation includes:

- Operating and installation instructions of all the components installed (arming devices, display units, alarm central unit, detectors);
- an ETS2 printout of the EIB project;
- the ETS2 configuration saved on a data storage device;
- plans, sketches, etc., of the system structure, the wiring, safeguarding areas, arming areas, detectors, alarm indicators, and of forced arming devices, etc.;
- if applicable: contacts and telephone numbers of property security and maintenance companies.

The system documentation must be handed over to the customer. Also, the most important alarm system data concerning the customer and the components installed on his premises must be recorded for the customer. You will find room for such records at the end of the customer's copy of the operating instructions document. The number and, if necessary, the safeguarding areas of the devices should be noted there.

The documentation should be kept in a safe place which is not accessible to unauthorised persons.



## 12. Specifications

Operating mains voltage:	AC 230 VAC, +/- 10 %; 50 / 60 Hz
Power consumption:	24 W max.
Secondary current consumption:	50 mA max. approx. 200 mA during battery charging
Fuses:	F1 = 100 mA, slow-blow (5 V supply, centre) F2 = 100 mA, slow-blow (12 V supply) F3 = 100 mA, slow-blow (ÜG supply) F4 = 3.15 A, slow-blow (230 V main fuse) F5 = 3.15 A, slow-blow (rev. batt. protection)
Alarm transm. dev. outp. voltage.:	12 VDC SELV, +/- 2 V
Max. output rating:	
Alarm transmission device:	100 mA
12 V supply:	100 mA
ASIR, ISIR, flashlight in total:	1.6 A (electronic overload protection)
Relay contact rating:	12 V (AC/DC) SELV, 5 A (min. current 30 mA)
Emergency power supply:	lead storage battery, 12 V / 1.2 Ah
Charging voltage:	approx. 13.4 V
Charging current:	150 mA max.
<i>instabus</i> EIB supply:	21 - 32 VDC SELV
<i>instabus</i> EIB power consumption:	240 mW max.
Connections:	
<i>instabus</i> EIB:	<i>instabus</i> connecting terminal
Mains:	screw terminal up to 1.5 mm <sup>2</sup>
Operating temperature:	-5 °C ... +45 °C
Storage temperature:	-25 °C ... +70 °C
Dimensions:	210 x 270 x 73 mm
Protective system:	IP 20
Weight incl. battery:	approx. 1500 g
Event log:	at least 80 events per arming area (AA) 40 events each for fire and attack signals
Wiring length	
to the alarm indicators:	100 m for 0.8 mm wire diameter
to the alarm transm. device:	200 m for 0.6 mm wire diameter
of the wired detector:	200 m for 0.8 mm wire diameter
of the sabotage line:	600 m for 0.8 mm wire diameter
Wired detector resistance:	1 kΩ max.

Technical specifications subject to change.


## 13. Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

**Please return the unit postage paid to our central service department giving a brief description of the fault:**

### Berker GmbH & Co

Klagebach 38  
D-58579 Schalksmühle  
Germany  
Telephone: +49 (0) 23 55 / 90 5-0  
Telefax: +49 (0) 23 55 / 90 5-112

 The CE-sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.